APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/429,643	10/29/1999	EDMUND COLBY MUNGER	00479.84602	6165

7590 05/04/2004	EXAMINER
BANNER & WITCOFF LTD	CHOUDHARY, ANITA
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ART UNIT	PAPER NUMBER
2153	

11TH FLOOR
WASHINGTON, DC 200014597

DATE MAILED: 05/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 April 2004*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-20,22-24,26-42,44-51,53 and 68-70* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1,2,4-19,23,24,26-41 and 45-49* is/are allowed.

6)☒ Claim(s) *20,22,42,44,50,51,53 and 68-70* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *85-97* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 March 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All   b)☐ Some * c)☐ None of:

　　　　1.☐ Certified copies of the priority documents have been received.

　　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
　　　　　　application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date *2,4,5,6,8,9,11*.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

The After Final amendment filed on April 20, 2004 has been entered.   Claims 85-97

have been cancelled.

Claims 1, 2, 4-20, 22-24, 26-42, 44-51, 53, and 68-70 are presented.

In view of the After Final Amendment filed on April 20, 2004, PROSECUTION IS

HEREBY REOPENED. A new non-final office action based on After Final Amendment is set

forth below.

Response to Arguments

Applicant's arguments, see Paper No. 20, filed April 20, 2004, with respect to the

rejections of claims 20, 22, 42, 44, 50, 51, 53, 68-70 have been fully considered and are

persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration,

new grounds of rejection are made in view of Olnowich et al. (US 5,654,695) and an article by

Shankar, "*A verified sliding window protocol with variable flow control*".

Information Disclosure Statement

The information disclosure statement (IDS) submitted has been considered by the

examiner. Including IDS filed May 16, 2002 (WO 00/70458) and September 20, 2002 (WO

99/38081).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 20, 22, 42, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Olnowich et al. (US 5,654,695) in view of Thalheimer et al (US 5,996,016).

Olnowich shows a system wherein single witch component able to produce multiple

functions including bypassing a blocked path by implementing alternative paths between devices

within the same network. In referring to claim 20, Olnowich shows,

For each of a plurality of data packets (inputs), randomly selecting one of the plurality of

physical transmission paths (alternate paths) through the plurality of nodes (col. 6 lines 13-18).

Selecting a next pair of source and destination addresses generated from an algorithm that

generates a plurality of pairs of source and destination addresses each associated with one

randomly selected physical transmission path (col. 6 lines 22-32); and

Transmitting each data packet over the randomly selected physical transmission path

using the selected next pair of source and destination addresses (col. 6 lines 19-21).

Although Olnowich shows substantial features of the claimed invention, Olnowich does

not particularly point out the system implemented through a "plurality of computers" or show

"network addresses". Nonetheless these features are well known in the art, and would have been

an obvious modification to the system disclosed by Olnowich as evidenced by Thalheimer.

In an analogous art, Thalheimer shows a system for multiple IP applications being

implemented on a single network interface, wherein each application can be bound to a different

IP network address for transmission through a network of computers (fig. 4). Thalheimer show a

method for unique network IP addresses/port numbers to be bound to IP application associated

with the single interface (see fig. 3, col. 5 lines 14-33). Network addresses associated with a

physical path or ports are selected from a plurality of alternate addresses (col. 4 lines 25-45).

Given these features, a person of ordinary skill in the art would have readily recognized the

desirability and advantages of modifying the system shown by Olnowich to employ the features

shown by Thalheimer, in order to route TCP/IP traffic through a network via unblocked paths

(col. 1 lines 66- col. 2 line 3).

In referring to claim 22 and 44, Olnowich show a step of avoiding selection of a path that

is not operational by using a path which is functional (col. 6 lines 23-32).

In referring to claim 42, Olnowich shows:

Receiving a plurality of data packets (inputs) for transmissions across the network (col. 5

lines 38-46 and fig. 2b).

For each input, randomly selecting one of the plurality of physical transmission paths

through the plurality of nodded and transmits each data packet over the randomly selected

physical transmission path using a pair of source and destination addresses generated from an

algorithm that generates a plurality of pairs of source and destination addresses each associated

with one randomly selected physical transmission path (col. 6 lines 22-32).

Although Olnowich shows substantial features of the claimed invention, Olnowich does

not particularly point out the system implemented through a "router coupled to a network",

"plurality of computers" or show "network addresses". Nonetheless these features are well

known in the art, and would have been an obvious modification to the system disclosed by

Olnowich as evidenced by Thalheimer.

The switching functions shown by Olnowich are well known in the art to be characteristic

of the inner workings of a router. Furthermore, in an analogous art, Thalheimer shows router

block 52, for routing to multiple alias addresses (col. 5 lines 45-61).

Thalheimer also shows a system for multiple IP applications being implemented on a

single network interface, wherein each application can be bound to a different IP network

address for transmission through a network of computers (fig. 4). Thalheimer show a method for

unique network IP addresses/port numbers to be bound to IP application associated with the

single interface (see fig. 3, col. 5 lines 14-33). Network addresses associated with a physical

path or ports are selected from a plurality of alternate addresses (col. 4 lines 25-45).

Given these features, a person of ordinary skill in the art would have readily recognized the

desirability and advantages of modifying the system shown by Olnowich to employ the features

shown by Thalheimer, in order to route TCP/IP traffic through a network via unblocked paths

(col. 1 lines 66- col. 2 line 3).

Claims 50, 51, and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Shannon in view of Shankar's article titled "*A verified sliding window protocol with variable

flow control*" (hereinafter referred to as Shankar).

In referring to claim 50, Shannon shows an access control of data on a network. Shannon

discloses:

o   A receiving computer (network device 100) that receives data packets from a transmitting

    computer (client) executing the steps for:

o   Extracting a discriminatory value inserted by the transmitting computer and comparing the

    extracted value to a set of valid discriminatory values on the basis of information previously

    shared with the transmitted computer (database information) (col. 13 lines 34-51).

o   In response to a detected match, accepting the received data packet for further processing and

    otherwise rejecting the data packet (col. 13 lines 52-65).

Although Shannon shows substantial features of the claimed invention, Shannon does not

show a "sliding window of valid discriminator values". Nonetheless this feature is well known

and would have been an obvious modification to the system shown by Shannon, as evidenced by

Shankar.

In an analogous art, Shankar shows a sliding window protocol for controlling access and

flow control of communication over a plurality of channels (see introduction). Shankar shows: a

receiving computer maintaining a sliding window of valid discriminator values, wherein the

window slides to encompass a next range of valid values in response to detecting matches (page

85 section 1.1 first paragraph).

Given this feature, a person of ordinary skill in the art would have readily recognized the

desirability and advantages of modifying the system shown by Shannon to employ the features

shown by Shankar in order to maintain a flow control of messages in real-time environments (see

Shankar page 86).

In referring to claim 51, extracting as the discriminatory value an IP address from the

header portion of the data packet (fig. 3, col. 13 lines 37-51).

In referring to claim 53, receiving computer receives information from the transmitting

computer sufficient to establish the set of valid discriminatory values (col. 6 lines 28-47).

Claims 68-70 rejected under 35 U.S.C. 103(a) as being unpatentable over Olnowich in

view of Shannon (U.S. 6,233,618).

In referring to claim 68, Olnowich shows:

o   Transmitting data packet (col. 4 lines 63-65)

o   Address is used to route data packet over network wherein address is generated using

    algorithm that selects the address quasi-randomly from addresses that mapped to receiving

    node (col. 6 lines 22-32).

Although Olnowich shows substantial features of the claimed invention, Olnowich does

not show "inserting network address for extraction by the receiving computer". Nonetheless this

feature is well known in the art, and would have been an obvious modification to the system

disclosed by Olnowich, ad evidenced by Shannon.

In an analogous art Shannon shows access control system. Shannon discloses a client

inserting into a header of data packet a network address (IP address of request) for extraction by

the receiving computer (col. 3 lines 59- col. 4 line 5).

Given this feature, a person of ordinary skill in the art would have readily recognized the

desirability and advantages of modifying the system shown by Olnowich to employ the feature

shown by Shannon, in order to provide access control for network security based on the identity

of request node (see abstract).

In referring to claim 69, Shannon shows computer instructions for inserting as the network address an IP address into the header portion of each packet (col. 3 lines 59- col. 4 line 5).

In referring to claim 70, Shannon shows transmitting computer transmits information to the receiving computer sufficient to establish a set (table 1) of valid network addresses (col. 7 lines 26-41).

Allowable Subject Matter

Claims 1, 2, 4-19, 23-24, 26-41, and 45-49 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita Choudhary whose telephone number is (703) 305-5268. The examiner can normally be reached on 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (703) 305-4792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AC
April 26, 2004

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